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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,743	06/26/2003	Saburo Kamiya	116388	4858

25944 7590 07/27/2005

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EXAMINER

RUTLEDGE, DELLA J

ART UNIT PAPER NUMBER

2851

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/603,743	Applicant(s) KAMIYA, SABURO	
	Examiner D. Rutledge	Art Unit 2851	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18, 19, 21, 22 is/are rejected.
- 7) ☒ Claim(s) 17 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Request for Continued Examination***

1. The Request for Continued Examination along with the required fee and the submission of an Amendment was received on 18 April 2005 and have been "Entered".

### ***Claims Previously Allowed Now Rejected***

2. Claims previously allowed are now rejected, see the following paragraphs. The Office regrets any inconvenience this may cause the applicant.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 11 - 16, 18, 19, 21, 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Naoyuki (JP 9-283432).

The reference has an exposure apparatus (see Figs. 2, 3) for producing a pattern from a mask onto a substrate or object. The movable body (x-y stage 26) having a reflective surface (the interferometer mirror) and moving with the object to be measured (substrate). The measuring unit 30 is in the space 42a, 46 is temperature controlled based on sensor 36, 38 by controlling the reheater 20 (the temperature adjusting unit). The holder of the optical system for interferometer 30 is not labeled, but the holder which is in the space 42a, 46 would be influenced by the temperature in the space. The

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projection optical system is on the frame forming the chamber, the holder or holding unit being one of the walls of the frame of the chamber. The interferometer detects/senses information that is perpendicular to the projection optical system. The temperature is measured at an area near the optical path of the measuring beam by sensor 36, 38. - clms 1, 4, 10, 11, 15, 18, 21, 22

There is a gas supply (blower 22), controller 14 - Clms 2, 3

The object to be measured is substrate – clm 5, 16

The reference does not disclose detecting focusing data or an alignment marks, however, focusing would be an inherent operation to be performed in an exposure apparatus. One of ordinary skill in the art would know that an improperly focused relationship between the mask and substrate would result in useless patterns and would have known how to use a focus detecting means and alignment marks to focus the mask and substrate. – clms 6-9, 13,14,19

The temperature adjusting unit is attached the frame forming the chamber of the space 42a, 46 see Fig. 1, components 16,18,32; Fig. 2, component 24a– clm 10, 20

5. Kamiya (US Pat. No. 4,989,031) is similar to Naoyuki reference above and can be used to reject the same claims. To simplify the Action the rejection will not be made. Hara et al. (US Pat. No. 6,616,898 has an interferometer reflecting means on a stage, movable body, and measuring projection means 7 that are temperature controlled by temperature control means 28 and gas supply 12, 13a. The holding member for the measuring projection means is not shown.

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***Allowable Subject Matter***

6. Claims 17 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not suggest or teach holding member fixed to a frame separately provided from a base member on which the movable body is arranged; nor a temperature adjusting unit that can adjust the measurement optical system and the holding member independently of each other.

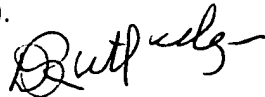
***Response Data***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Rutledge whose telephone number is (571) 272-2127. The examiner can normally be reached on Mon - Thurs, 6:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D. Rutledge  
Primary Examiner  
Art Unit 2851

dr  
7/24/05